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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/772,908

02/05/2004

Thomas G. Cehelnik

CEHELNIK

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03/25/2005

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EXAMINER

NATALINI, JEFF WILLIAM

ART UNIT

PAPER NUMBER

2858

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EE

**Office Action Summary**

Application No.

10/772,908

Applicant(s)

CEHELNIK, THOMAS G.

Examiner

Jeff Natalini

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/6/04</u> . | 6) <input type="checkbox"/> Other: ____  |

### ***Specification***

1. The title of the invention is not proper. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Computer Motional Command Interface"

2. The specification also has some grammatical mistakes:
  - Pg 7 line 282 "not show" should be "not shown".
  - Pg 10 line 412-414 is unclear, "It is commonly recognized", should state "the problem associated with an electrostatic source (or however applicant feels it should read) is commonly recognized."
  - Pg 12 line 477-480 refers to a "modulated grounded electrode" this is unclear what applicant is referring to.

### ***Drawings***

3. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because each drawing has a caption. These captions must be deleted, but can be placed in the "Drawing Description" part of the specification. Each drawing should only have a label for example: figure 1, figure 2, and then figures 3a, figures 3b, and figures 3c should be labeled separately. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, wherein the means for modulation being a switch in a shoe (claim 19) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

4. Claims 1-20 are objected to because of the following informalities:

Note: In introducing subject matter in a claim generally "a or an" is used and when referring back to that object, measurement, etc... "the" and/or "said" is used. It seems throughout the instant application sometimes "a" or "an" introduces matter and sometimes "the" introduces matter this generally makes the whole application not clear. When referencing back "the said" is used, which is correct, but it would be more clear if applicant uses "a" or "an" to introduce and "the" or "said" or "the said" to show antecedent basis back to an introduced subject. I've tried to point to some (if not all) examples in the claims. Also applicant is advised to look at some patents as examples of how dependencies work to see an apparatus dependency and method dependency.

- In regard to claim 1, part a, in order to make more clear instead of "the background electric potential" and "the presence or motion of a body" should be introduced with "a" or "an".  
part d line 2, should read "body's motion or its presence;"  
Part f: lines 1-2, "the electrical conductivity" and "the AC amplitude" have no antecedent basis as they are not introduced anywhere in the claim, and also the statement "changes in fairly predictable way", is unclear, "fairly" should be removed as it is unnecessary and does not provide meaning to the claim.
- In regard to claims 2-5, 8, and 9, it is stated "an apparatus using the method in claim 1", it seems as if all these claims add a method step to the procedure, but do not add any functional means that would be an apparatus. It seems as though all these claims should refer to the method in claim 1. If applicant desires that an apparatus also should be claimed, a new independent claim similar to

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claim1 should be claimed for example (and these claims should depend from that claim):

An apparatus for sensing motion of a body using quasistatic electrical potential measurements consisting of:

at least one means for sensing said quasistatic electrical potential...;

wherein at least one motional comman perturbs the said ...;

means for electrically conditioning and acquiring ....;

- In regard to claims 6, 7, and 11, refer to the same objection as above, but this one refers to the apparatus as in claim 1, which is clearly defined as a method, if a new apparatus claim is created these should depend from it.
- In regard to claim 3, 4, 5, 6, and 7, there is no antecedent basis for "the AC potential" or "DC potential", these must be introduced into the claim or a previous dependent claim.
- In regard to claim 8, should read either "in a toy" or "in toys".
- In regard to claim 9, "the AC power wiring or equipment" has no antecedent basis.
- In regard to claim 10 the last two lines should read "originating from a static field transmitter or an AC transmitter;"
- In regard to claim 11, in part a: "the background AC signal" has no antecedent basis.

In part b: "the pass band signals" and "the AC and DC part" have no antecedent basis and are unclear in their meaning as to how the pass band signal comes from the amplifier.

- In regard to claim 12, "apparatus using the method of claim 11" but claim 11 is an apparatus so this would not work. Also, "the vector" lacks antecedent basis and is unclear how it is joining the sensors.
- In regard to claim 13-20, "apparatus using method in claim 12", but claim 12 is an apparatus so this would not work.
- In regard to claim 17, should read "a baby mobile toy" not "baby mobile toy".
- In regard to claim 18, this claim seems to be lacking completeness, "method of claim 12 as a part of", this lacks any patentably distinguishable features.
- In regard to claim 19, no antecedent basis for "the means for modulation", and a switch in a shoe is not discussed in the specification or shown in any pictures, so it is unclear what applicant is claiming in this claim.

Appropriate correction is required. Examiner will examine the case as best understood encompassing the broadest meaning to the current claims with respect to all the objections made.

5. An examination of this application reveals that applicant is unfamiliar with patent prosecution procedure. While an inventor may prosecute the application, lack of skill in this field usually acts as a liability in affording the maximum protection for the invention disclosed. Applicant is advised to secure the services of a registered patent attorney or

agent to prosecute the application, since the value of a patent is largely dependent upon skilled preparation and prosecution. The Office cannot aid in selecting an attorney or agent.

Applicant is advised of the availability of the publication "Attorneys and Agents Registered to Practice Before the U.S. Patent and Trademark Office." This publication is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18 and 19 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph (see objections to these claims above for better detail).

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –



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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6, 7, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Van Schyndel et al. (6859141).

In regard to claim 1, Van Schyndel et al. discloses a method for sensing motion of a body using quasistatic (low frequency, col 4 line 51-56) electric potential measurements (abstract) consisting of:

a. at least one sensor capable of detecting said quasistatic electric potential perturbations relative to the background electric potential caused from the presence or motion of a body in proximity to sensor (fig 1, sensor 14);

b. a least one motional command perturbing the said electric potential (sensor 12 sends out a transmitting field (col 4 line 64 – col 5 line 7));

c. a means electronically conditioning and acquiring the signal data from the at least one sensor, or a plurality thereof, in time (fig 1 (28-detector body));

d. a means processing the acquired data to produce a signal indicative of a body's motion of its presence (fig 1 (22-amplifier));

e. a means of recognizing the said signal associated with body's motion or its presence (fig 1 (24-signal detector));

f. a means of maintaining or modulating the electrical conductivity of the body such that the A.C. amplitude changes in a fairly predictable way with changes in relative proximity between the said sensor and body (fig 3, shows that the object (58) is grounded (75), so that the changes in proximity will be predictable for proximity detecting)

g. a means of dispatching a command to an electronic device upon recognition (fig 6 (80) is an communication device that will receive the signal from the sensor (20)).

In regard to claim 3, Van Schyndel et al. discloses where communicating motional commands to a device uses perturbations in the AC background potential (abstract and col 4 line 51-56).

In regard to claims 6 and 7, Van Schyndel et al. discloses where detecting the AC background potential (col 4 line 51-56) of inanimate objects/or animate objects (col 2 line 55-65, as long as the approach of the object decrease the electric field it will be sensed and a animate or inanimate object will decrease the electric field so both will be sensed).

In regard to claims 9 and 10, Van Schyndel et al. discloses where communicating motional commands to a device is done by recognizing perturbations (abstract and col 4 line 51-56) in the background signal originating from AC equipment/AC transmitter (col 2 line 55-65 explains how the electric field is changed by the object).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Schyndel et al. (6859141).

In regard to claims 2 and 8, Van Schyndel et al. lacks specifically stating an apparatus that can sense motion through walls, ceilings, doors, and containers as well as stating this is used in a toy.

An intended use of using the apparatus as claimed for sensing motion of a body through walls, ceilings, doors, and containers and using in a toy. It is noted that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235, 238 (CCPA 1967). In this instance, the apparatus of Van Schyndel et al. is capable of performing the intended use because the person or object would still intercept a part of the electric field being sensed in whatever object it is used in. Thus, the prior art device of Van Schyndel et al. meets the limitations of the claim(s).

10. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Schyndel et al. (6859141) in view of Phillip (5730165).

Van Schyndel et al. discloses where communicating motional commands to a device uses perturbations in the AC background potential (abstract and col 4 line 51-56). Van Schyndel et al. lacks wherein perturbations are used in DC background potential.

Phillip discloses a method for detecting the presence of a user near a faucet (abstract) that has a capacitance plate that is connected to a DC potential (col 7 line 50-61), the longer or shorter charge pulses determine the presence of a user (abstract).

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Van Schyndel et al. to incorporate using DC background potential to detect perturbations as taught by Phillip in order for the system to be effective in wet environments (col 8 line 38-39).

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Schyndel et al. (6859141) in view of Gershenfeld et al. (6066954).

In regard to claim 11, Van Schyndel et al. discloses a input impedance amplifier (fig 1 (22)) transmits sensed signal to the detector (24).

Van Schyndel et al. lacks specifically stating that the amplifier would have low frequency response to signals about 4Hz and that there is a means for filtering the amplified signal.

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Van Schyndel et al. to have a response to signals about 4 Hz as taught by MPEP 2144.05 IIB which states that a particular parameter must first be recognized as a result effective variable, i.e., a variable which achieves a recognizable result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

Gershenfeld et al. discloses a motion detector wherein after amplification (fig 1a (25)) a filter is used for the signal (31).

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Van Schyndel et al. to incorporate filtering the amplified signal as taught by Van Schyndel et al. in order to smooth the output of the detection means (col 5 line 9-10).

12. Claims 12-17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Schyndel et al. (6859141) and Gershenfeld et al. (6066954) as applied to claim 11 above, and further in view of (News Week, "PlayStation 2 gets an Eyelid", herein referred to as News Week).

In regard to claim 12, Van Schyndel et al. discloses where communicating motion commands to a device uses perturbations in the AC background potential (abstract and col 4 line 51-56).

Van Schyndel et al. lacks wherein the sensors are on a viewing monitor and having a pair of sensors that form an array.

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Van Schyndel et al. to have two sensors that formed a sort of an array as taught by MPEP 2144.04 VI B states that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

News Week discloses wherein the Playstation2 has a sensor that will sit on top of the TV as seen in the pictured, and sense the presence and motion of an object in front of the screen.

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Van Schyndel et al. to place the sensors on top of a viewing monitor as taught by News Week in order to provide an interface from the persons movements to the monitor.

In regard to claims 13-17 and 20, Van Schyndel et al. lacks specifically stating an apparatus that uses this method as a part of portable computing device, viewing pictures and videos, computer monitor device, keyboard device, baby mobile toy, or used to detect fish.

An intended use of using the apparatus as claimed for being a part of a computing device, viewing device, computer monitor, keyboard, toy, mobile toy, or detecting fish. It is noted that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235, 238 (CCPA 1967). In this instance, the apparatus of Van Schyndel et al. is capable of performing the intended use because object would still intercept a part of the electric field being sensed in any

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one of these devices. Thus, the prior art device of Van Schyndel et al. meets the limitations of the claim(s).

### ***Conclusion***

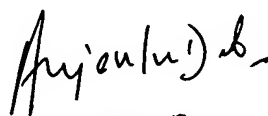
13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Janus (6333691) discloses a motion detector where high frequency electromagnetic radiation is produced via a transmitting antenna and the reflected radiation is modified due to the Doppler effect and is compared in an evaluation device to detect motion. Gillespie et al. (20020093491) capacitively detects the proximity of a finger to the sensor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Natalini whose telephone number is 571-272-2266. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeff Natalini



ANJAN DEB  
PRIMARY EXAMINER